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REMARKS

This response is a full and complete response to the final Office Action mailed July 27, 2005. In the Office Action, the Examiner notes that claims 1-22 are pending of which claims 1-13 and 15-22 are rejected, and claim 14 is objected to. By this response, Applicants have herein amended claims 1-3, 4-11, 13-14, and 19-21. No new matter has been entered.

In view of both the amendments presented above and the following discussion, Applicants submit that none of the claims now pending in the application are anticipated or obvious under the respective provisions of 35 U.S.C. §102 and §103. Therefore, Applicants believe that this application is now in condition for allowance.

It is to be understood that Applicants, by amending the claims, do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendment.

35 U.S.C. §102

Claims 1-7, 9-11, 13-14, and 19-21

The Examiner has rejected claims 1-7, 9-11, 13-14, and 19-21 under 35 U.S.C. §102 as being anticipated by Wolf et al. (US patent 6,463,508, issued October 8, 2002, hereinafter "Wolf"). Applicants respectfully traverse the rejection.

In general, Wolf teaches a method for caching media streams at proxy servers. As blocks associated with a media stream are received by a proxy server, the blocks are grouped into segments by the proxy server, where the cache admission and replacement policies attach a different caching value to different segments. (Wolf, Abstract). In particular, Wolf teaches that a media object is segmented into segments such that the size of a current segment is always twice the size of a previous segment. (Wolf, Col. 8, Lines 30-39).

Wolf, however, fails to teach or suggest each and every element of Applicants' invention of at least claim 1. Namely, Wolf fails to teach or suggest at least the

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limitation of "segmenting the streaming multimedia clip into a first plurality of segments having a first predetermined segment size and a second plurality of segments of exponentially increasing size," as taught in Applicants' invention of at least claim 1. Specifically, Applicants' claim 1 positively recites:

"In a network, a method for segmenting a streaming multimedia clip and distributing said streaming multimedia clip from an origin server to a plurality of streaming caches which comprise a distribution set in said network, the method comprising the steps of:

determining a size (L) of the multimedia clip;

segmenting the streaming multimedia clip into a first plurality of data segments having a first predetermined segment size and a second plurality of data segments of exponentially increasing size;
and

distributing the first and second pluralities of data segments from the origin server to said plurality of streaming caches, wherein an i-th data segment is distributed in an i-th distribution round to each of said plurality of streaming caches."

(Emphasis added.)

As such, Applicants' invention of at least claim 1 teaches segmentation of a multimedia clip at an origin server. The segmenting of the media clip is accomplished by dividing the multimedia clip into segments. The segmenting of the multimedia clip is performed such that a first plurality of segments is created and a second plurality of segments is created. The first plurality of segments includes segments having a first predetermined segment size. The second plurality of segments includes segments of exponentially increasing size. The segments are then distributed from the origin server to each of a plurality of streaming caches. The distribution of the segments from the origin server to the plurality of streaming caches is performed after segmenting of the multimedia clip. Furthermore, the distribution of the segments from the origin server to each of the plurality of streaming caches is performed over a number of distribution rounds such that an i-th data segment is distributed in an i-th distribution round to each of said plurality of streaming caches.

By contrast, Wolf teaches segmentation of a multimedia clip at a proxy server by combining media blocks into segments. As taught in Wolf, the segments have exponentially increasing size. In particular, Wolf teaches that "the segments further away from the start of the object are assigned a progressively larger number of blocks. In FIG. 3, the i-th segment, e.g., segment 4, may contain twice the number of

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blocks of the (i-1)th segment, e.g., segment 3." (Wolf, Col. 4, Lines 10-14). Wolf only teaches segments of exponentially increasing size. Wolf is completely devoid of any teaching or suggestion of two pluralities of segments where the plurality of first segments have a predetermined size and the plurality of second segments have exponentially increasing size.

Furthermore, as described herein, Wolf teaches segmentation of a multimedia clip at a proxy server by combining media blocks into segments. In other words, Wolf teaches that a media clip is divided into packets for transmission from an origin server to a proxy server. Upon being received by the proxy server, the packets (i.e., media blocks) are then recombined into segments of increasing size. The combining, on a proxy server, of packets transmitted from an origin server to the proxy server to form segments, as taught in Wolf, is simply not the division, on an origin server, of a media clip to form segments, as taught in Applicants' invention of at least claim 1.

Moreover, distribution of an entire media clip from an origin server to a single proxy server to enable segmentation to be performed on the single proxy server, as taught in Wolf, is simply not segmentation of a media clip on an origin server for distribution to a plurality of streaming caches, as taught in Applicants' invention of at least claim 1. Moreover, since the media clips in Wolf are distributed prior to segmenting, there is absolutely no need in Wolf for distribution rounds in which segments are distributed. In other words, since the segments of Wolf are created on the proxy server where the segments are stored, there is absolutely no need for distribution rounds in the Wolf system. As such, Wolf is completely devoid of any teaching or suggestion of any distribution rounds. Thus, the teachings of Wolf are completely different from the teachings of Applicants' invention of at least claim 1.

"Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim" (Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984)(citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added)). The Wolf

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reference fails to disclose each and every element of the claimed invention, as arranged in the claim.

As such, Applicants submit that independent claim 1 is not anticipated and fully satisfies the requirement of the 35 U.S.C. §102 and is patentable thereunder. Furthermore, independent claims 13 and 19 recite features similar to the features of independent claim 1. As such, and for at least the same reasons discussed above, Applicants submit that these independent claims are also not anticipated and fully satisfy the requirements of the 35 U.S.C. §102 and are patentable thereunder. Moreover, claims 2-11, 14, and 20-21 depend, either directly or indirectly, from independent claims 1, 13 and 19 and recite additional features thereof. As such, and for at least the same reasons discussed above, Applicants submit that these dependent claims are also not anticipated and fully satisfy the requirements of the 35 U.S.C. §102 and are patentable thereunder. Therefore Applicants respectfully request that the rejection be withdrawn.

35 U.S.C. §103

Claim 8

The Examiner has rejected claim 8 under 35 U.S.C. §103 as being obvious over Wolf et al. (US patent 6,463,508, issued October 8, 2002, hereinafter "Wolf") in view of Eberman et al (US patent 6,173,287, issued January 9, 2001, hereinafter "Eberman"). Applicants respectfully traverse the rejection.

Claim 8 depends from claim 1 and recites additional limitations therefor. As discussed above, Wolf fails to teach or suggest Applicants' invention of claim 1, as a whole. Namely, Wolf fails to teach or suggest at least the limitation of "segmenting the streaming multimedia clip into a first plurality of data segments having a first predetermined segment size and a second plurality of data segments of exponentially increasing size." Furthermore, Eberman fails to bridge the substantial gap between Wolf and Applicants' invention of claim 1.

In general, Eberman teaches a technique for assessing an item of interest within a particular one of a plurality of stored representations of data. Specifically, Eberman teaches searching a plurality of stored annotations corresponding to

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different items within the plurality of stored representations to locate an annotation of interest corresponding to the item of interest. (Eberman, Abstract). Eberman is completely devoid of any teaching or suggestion of segmenting a streaming multimedia clip, much less segmenting a streaming multimedia clip in accordance with Applicants' invention, or distributing the segments from the origin server to the streaming caches. As such, since both Wolf and Eberman fail to teach or suggest any of the elements of Applicants' invention of at least claim 1, Wolf and Eberman, either alone or in combination, must fail to teach Applicants' invention of at least claim 1, as a whole.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Thus, it is impermissible to focus either on the "gist" or "core" of the invention, Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc., 230 USPQ 416, 420 (Fed. Cir. 1986) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added).

As such, Applicants' submit that dependent claim 8 is not obvious and fully satisfies the requirements of the 35 U.S.C. §103 and is patentable thereunder. Therefore Applicants respectfully request that the rejection be withdrawn.

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CONCLUSION

Thus, Applicants submit that the pending claims are in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Michael Bentley at (732) 383-1434 or Mr. Eamon Wall at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

11/22/05

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